

UNITED STATES DISTRICT COURT
FOR THE
DISTRICT OF VERMONT

WAYNE SENVILLE; DONALD HORENSTEIN; :
VERMONT PUBLIC INTEREST RESEARCH :
GROUP, INC.; FRIENDS OF THE EARTH, :
INC.; SIERRA CLUB, INC.; and :
CONSERVATION LAW FOUNDATION, :

Plaintiffs, :

v. :

Case No. 2:03-cv-279

MARY E. PETERS in her official :
capacity as Administrator of the :
Federal Highway Administration :
(FHWA), and PATRICIA A. MCDONALD :
in her official capacity as :
Secretary of the Vermont Agency of :
Transportation (VTrans), :

Defendants. :

INTRODUCTION

Plaintiffs VPIRG, Friends of the Earth, Sierra Club, Conservation Law Foundation and two individuals bring an eleven-count amended complaint for declaratory and injunctive relief against the Administrator of the Federal Highway Administration ("FHWA") and the Secretary of the Vermont Agency of Transportation ("VTrans"). They seek, *inter alia*, 1) a declaration that the FHWA has violated The National Environmental Policy Act ("NEPA") and other laws in approving and funding segments A-B of the Chittenden County Circumferential Highway ("CCCH"); 2) an order requiring the FHWA to withdraw its approval of the CCCH until such time as the FHWA has complied with NEPA; and 3) an injunction against ground-disturbing work in connection

with any portion of the segment A-B project.

Before the Court are Plaintiffs' Motion for Partial Summary Judgment (Doc. 29) and Defendants' Cross-Motion for Judgment (Doc. 43).¹

BACKGROUND

I. The Chittenden County Circumferential Highway

Chittenden County, located in the northwestern portion of Vermont, consists of nineteen towns and cities. It has the largest county population (2000 census). Over the past several decades it has shown a steady transformation from a rural society and economy to an urban and suburban society and economy. (AR) VI-425 Within the last decade, Chittenden County has experienced extensive growth and development pressure and severe burdens on some local roads.

The proposed Chittenden County Circumferential Highway ("CCCH"), also known as VT-289, is a four-lane, limited access highway extending approximately 16.7 miles from I-89 in Williston, north and west through Essex to Vermont Route 127 in Colchester. The proposed action was designated as a

¹ Plaintiffs' Motions to Modify and to Supplement the Administrative Record (Docs. 10 & 32), Defendants' Motion to Strike Extra-Record Exhibits (Doc. 56), and Plaintiffs' Motions to Strike Portions of Defendants' Cross-Motion, to Supplement the Administrative Record to Include Burlington City Council Resolutions, and to Strike Declaration of John S. Hanna (Docs. 60, 61 & 62) are addressed in a separate opinion.

demonstration project under Section 131(f) of the Surface Transportation Assistance Act of 1982, which delegated the responsibility of preparing the environmental documentation to the state of Vermont. The legislation was intended to show the feasibility of reducing the time and cost required to complete highway projects, an aim which apparently has not been achieved.

The purpose of the project was stated to be to improve travel for through traffic and to relieve congestion on existing highways in Colchester, Essex, Williston and Essex Junction. The towns include provision for a circumferential highway in their master plans, as does the Chittenden County Regional Planning Commission's regional plan.

Because state funding was not available for a circumferential highway, the four towns, along with the planning commission, obtained a demonstration grant as part of the 1982 legislation. They also formed the Chittenden County Circumferential Highway District ("CCCHD"), and undertook, in conjunction with VTrans, the responsibility for implementing the project. They retained an engineering and planning firm, which among other things projected that travel demands required a four-lane highway, and that transportation system management techniques (expanded bus service, park-and-ride, van pooling, etc.) were not practicable.

Because the estimated construction cost exceeded the

available funds, however, the planners decided to build a two-lane highway with climbing lanes as necessary, on a four-lane right-of-way (ROW). They also divided the CCCH into five (later ten) segments. Segments C-F, between Route 117 and Route 2A in Essex, have been built as a two-lane limited access road. The construction of Segments A-B, linking C-F with I-89, is at issue in this suit.

The 1980 census reported that the urbanized portion of Chittenden County exceeded 50,000, triggering the necessity of forming a Metropolitan Planning Organization ("MPO") to oversee transportation planning for the entire metropolitan area. The MPO adopted an interim transportation plan which recommended that the CCCH be constructed as an at-grade two-lane road.

VTrans, with assistance from FHWA, prepared a Draft Environmental Impact Statement ("DEIS") that was published on August 1, 1985, and a Final Environmental Impact Statement ("FEIS") that was published on August 29, 1986. (AR _____.)² The FEIS concluded that there was a need for major highway improvements in the area. According to the FEIS, the CCCH was intended to address five transportation-related issues: road system hierarchy,³ capacity and level of service ("LOS"),⁴

² Citations are to the electronically filed administrative record in the format AR _____. .

³ The elements of a highway system are characterized as local, collector, arterial and interstate highways. Local

transportation demand,⁵ social demands and economic development,⁶ and safety.⁷ According to the FEIS, the CCCH would

highways serve immediately adjacent land uses only and generally carry low traffic volume. Collector highways connect local highways and carry more traffic. Arterial highways connect collector and local highways. Traffic volumes on arterial highways tend to be significant; adjacent land uses are usually commercial, retail or industrial. Interstates are intended to serve regional needs. All major east-west and north-south roadways east of U.S. Route 7, in this part of Vermont, with the exception of U.S. Route 2 and the interstate, must go through the Five Corners intersection in Essex Junction. A considerable amount of traffic uses local highways in Essex in order to avoid the bottleneck at Five Corners.

⁴ Capacity is the maximum number of vehicles that can pass through an intersection or over a roadway in a given period of time. The closer the traffic volumes are to the capacity of the roadway or intersection, the slower the traffic flow, the greater the delay, and the more unpredictable drivers become. Traffic analyses describe six LOS--A through F. LOS "C" or better is usually considered acceptable. A road is considered "congested" when LOS drops below "C". Congested intersections can often be remedied by engineering solutions, but relief of congested highway links usually means road reconstruction. In 1986 13 out of 21 intersections in the area operated at LOS below C. There were also several deficient roadway links, according to the FEIS.

⁵ In 1986, computer modeling projected peak traffic flows for the 2004 design year on the existing roadway system. The analysis concluded that major highways in the study area would be at LOS D or worse for 35 out of 65 miles of roadway, not counting the interstate. Twenty out of 21 intersections were predicted to be at LOS D or worse.

⁶ The analysts predicted that Chittenden County would continue to experience significant population and economic growth.

⁷ The local town roads were functioning as arterial or collector roads, but were not designed to meet standards for such

provide additional regional by-pass capability around population centers and . . . relieve existing traffic congestion through these areas. The proposed action will eliminate most of the existing traffic deficiencies in the study corridor and will allow maintenance of acceptable levels of service on the existing network beyond the design year 2004. It will also have indirect benefits to the roadway networks in the cities of Burlington, South Burlington, and Winooski.

(AR .) The FEIS also documented that the CCCH would result in significant impacts in seven areas: transportation, land use, parkland, archaeology, agriculture, stream crossings, and noise. Other potential effects were evaluated, but considered to have no or minimal significance.

VTrans issued a Record of Decision ("ROD") for the CCCH on November 5, 1986. The ROD makes no mention of the scaled-back aspect of the project, but the CCCH as described in the FEIS makes clear that the project slated for construction is a two-lane highway that is intended to be expanded to four lanes sometime in the future. Apparently there was no appeal from this ROD.

In September 1991 FHWA authorized construction funds for Segments C-F, a 4.5 mile segment between VT 117 and VT 2A in Essex. Segments C-F were opened to traffic in 1993. In late 1998 VTrans began work on a reevaluation of Segments A-B, in preparation for construction of that segment. Segments A-B would

roads.

extend from I-89 in Williston to join Segments C-F at VT 117. VTrans concluded in 1999 that the 1986 FEIS remained adequate and a supplemental EIS ("SEIS") was not required. (AR .)

In 2001 FHWA determined that the 1986 FEIS and ROD could not serve as the FHWA NEPA documents for future phases of the project, because FHWA had never approved the 1986 documents. FHWA decided that the appropriate procedure was to adopt the 1986 FEIS, pursuant to 40 C.F.R. § 1506.3. It did so on or about July 20, 2002. (AR .) FHWA also decided to reevaluate Segments A-F, the next phase of construction plus the already built segments. That reevaluation issued August 9, 2002 ("EA"), a revised reevaluation issued May 9, 2003 ("REA") and a final revised reevaluation issued on August 15, 2003 ("FREA"). FHWA concluded that no additional or new significant environmental impacts had been identified, and issued a ROD on August 22, 2003. (AR 1A000601-14.) The August 22, 2003 ROD also recorded that FHWA had adopted the 1986 FEIS under the provisions of 40 C.F.R. § 1506.3, but that FHWA would require additional environmental evaluation with public involvement before making a determination regarding construction beyond Segments A-F. (AR 1A000602, 05.)

On September 8, 2002, President Bush issued Executive Order ("E.O.") 13274: Environmental Stewardship and Transportation Infrastructure Project Reviews. This E.O. required federal agencies to ensure environmental reviews of transportation

infrastructure projects be conducted in a timely and environmentally responsible manner, and to cooperate in the planning and development of transportation facilities and services. The CCCH was designated as a high-priority transportation infrastructure project, and identified for expedited environmental review.

Following the CCCH's designation as a high priority project under the E.O., FHWA and EPA coordinated a resolution of issues raised by EPA's comments on the REA. VIII4-5.

II. The Statutory and Regulatory Framework

NEPA directs that all federal agencies must, for major federal actions significantly affecting the quality of the human environment, prepare a detailed statement concerning 1) the environmental impact of the proposed action; 2) any adverse environmental effects which cannot be avoided should the proposal be implemented; 3) alternatives to the proposed action; 4) the relationship between local short-term uses of man's [sic] environment and the maintenance and enhancement of long-term productivity; and 5) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented. 42 U.S.C.A. § 4332 ().

Council on Environmental Quality ("CEQ") regulations implementing NEPA require that environmental impact statements be prepared in two stages, a draft EIS that is circulated for public

comment, and a final EIS that responds to those comments. 40 C.F.R. § 1502.9(a), (b). Agencies must prepare supplements to draft or final EISs if 1) the agency makes substantial changes in the proposed action that are relevant to environmental concerns; or 2) there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. 40 C.F.R. § 1502.9(c).

The FHWA also has adopted regulations with respect to the preparation of EISs. With regard to supplementing an EIS, its rule differs slightly from the CEQ regulation. Supplementation in its view is required whenever it determines that "(1) [changes] to the proposed action would result in significant environmental impacts that were not evaluated in the EIS; or (2) [n]ew information or circumstances relevant to environmental concerns and bearings [sic] on the proposed action or its impacts would result in significant environmental impacts not evaluated in the EIS." 23 C.F.R. § 771.130(a).

An SEIS is prepared using virtually the same process and format as an EIS. 23 C.F.R. § 771.130(d). Where the FHWA is uncertain of the significance of the new impacts, it may require an Environmental Assessment ("EA") to assess the impacts of the changes, new information, or new circumstances. 23 C.F.R. § 771.130(c).

According to CEQ regulations, an EA is a public document

that briefly provides sufficient evidence and analysis for determining whether to prepare an EIS or a FONSI (finding of no significant impact), or to aid an agency's compliance with NEPA when no EIS is necessary, or to facilitate the preparation of an EIS when one is necessary. An EA must include brief discussions of the need for the proposed action, of alternatives to the proposed action, of the environmental impacts of the proposed action and alternatives, and a list of agencies and persons consulted. 40 C.F.R. § 1508.9.

According to FHWA regulations, an EA shall be prepared where the FHWA believes an EA would assist in determining the need for an EIS. 23 C.F.R. § 771.119(a). An EA must determine which aspects of the proposed action have potential for social, economic, or environmental impact; identify alternatives and measure which might mitigate adverse environmental impacts; and identify other environmental review and consultation requirements which should be performed concurrently with the EA. 23 C.F.R. § 771.119(b). The EA need not be circulated for comment, but it must be available for public inspection. 23 C.F.R. § 771.119(d). If no significant impacts are identified, a FONSI is recommended. 23 C.F.R. § 771.119(g). If at any point the FHWA determines that the proposed action is likely to have a significant impact on the

environment, an EIS is required. 23 C.F.R. § 771.119(i).⁸

Also according to FHWA regulations, a "written evaluation" of an FEIS is required if major steps to advance the action have not occurred within three years after approval of an FEIS. 23 C.F.R. § 771.129(b).

DISCUSSION⁹

⁸ CEQ regulations define "significantly" as used in NEPA. The word requires consideration of both context and intensity. Context means that the significance of an action must be analyzed in several contexts such as society as a whole, the affected region, the affected interests and the locality, for both short and long-term effects. Intensity refers to the severity of impact. A significant effect may exist even if the agency believes that the effect will be beneficial. Other factors that relevant to intensity are the effect on public health or safety, unique characteristics of the geographic area, the degree of controversy, the degree of uncertainty, the precedential value, the cumulative effects, the effect on scientific, cultural or historical resources, the effect on endangered or threatened species, and whether the action threatens a violation of law or requirements imposed for the protection of the environment. 40 C.F.R. § 1508.27.

⁹ Although the Defendants do not challenge Plaintiffs' standing to sue, the Court has an independent obligation to examine its own jurisdiction, "and standing 'is perhaps the most important of [the jurisdictional] doctrines.'" FW/PBS, Inc. v. City of Dallas, 493 U.S. 215, 231 (1990) (quoting Allen Wright, 468 U.S. 737, 750 (1984)). In order to satisfy the standing requirements of Article III of the United States Constitution, plaintiffs must show injury in fact, causation and redressability. See Lujan v. Defenders of Wildlife, 504 U.S. 555, 560-61 (1992). An organization has standing to bring suit on behalf of its members if they would otherwise have standing to sue as individuals, the interests at stake are germane to the organization's purpose, and the participation of the members is not necessary to either the claim asserted or the relief requested. Friends of the Earth, Inc. v. Laidlaw Environmental Servs. (TOC), Inc., 528 U.S. 167, 181 (2000) (citing Hunt w.

I. Standard of Review

The Administrative Procedure Act governs judicial review of an agency's compliance with NEPA. Sierra Club v. United States Army Corps of Engineers, 772 F.2d 1043, 1050 (2d Cir. 1985). That act provides that a reviewing court shall "hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law, . . . [or] without observance of procedure required by law." 5 U.S.C.A. §§ 706(2)(A), (D) (). See Center for Biological Diversity v. United States Forest Service, 349 F.3d 1157, 1165 (9th Cir. 2003); Sierra Club v. Marita, 46 F.3d 606, 619 (7th Cir. 1995); Hanly v. Kleindienst, 471 F.2d 823, 828-29 (2d Cir. 1972) (citing Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402 (1971), abrogated on other grounds, Califano v. Sanders, 430 U.S. 99 (1977)). Although a "'court may not substitute its judgment for that of the agency,' an agency decision may be set aside where the agency 'has relied on factors which Congress has not intended it to consider, entirely failed to consider an important part of the problem, offered an explanation for its decision that runs counter to the

Washington State Apple Advertising Comm'n, 432 U.S. 333, 343 (1977)).

In their Amended Complaint, the individual plaintiffs have adequately alleged injury in fact, causation and redressability. The plaintiff organizations have shown that they have standing to sue on behalf of their members.

evidence before the agency, or is so implausible that it could not be ascribed to a difference in view or the product of agency expertise.'" Natural Resources Defense Council, Inc. v. Muszynski, 268 F.3d 91, 97 (2d Cir. 2001) (quoting City of New York v. Shalala, 34 F.3d 1161, 1167 (2d Cir. 1994)).

Review of an agency's decision not to supplement an FEIS is controlled by the arbitrary and capricious standard of § 706(2)(A). Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 376 (1989); 5 U.S.C. § 706(2)(A). A reviewing court must make a "searching and careful" inquiry into "whether the decision was based on a consideration of the relevant factors and whether there has been a clear error of judgment." Marsh v. Oregon NRC, 490 U.S. at 378. The court must be able to ensure that an agency "has taken a 'hard look' at environmental consequences; it cannot 'interject itself within the area of discretion of the executive as to the choice of the action to be taken.'" Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976) (quoting Natural Resources Defense Council v. Morton, 458 F.2d 827, 838 (D.C. Cir. 1972)); accord Stewart Park & Reserve Coalition, Inc. (SPARC) v. Slater, 352 F.3d 545, 557 (2d Cir. 2003).

In the Second Circuit, this review has two steps. First, the court considers "whether the agency took a 'hard look' at the possible effects of the proposed action." Village of Grand View v. Skinner, 947 F.2d 651, 657 (2d Cir. 1991). Second, if the

court is satisfied that the agency took a hard look, the court must determine "whether the agency's decision was arbitrary or capricious." Id. Courts will not automatically defer to the agency "without carefully reviewing the record and satisfying themselves that the agency has made a reasoned decision based on its evaluation of the significance--or lack of significance--of the new information," however. Marsh v. Oregon NRC, 490 U.S. at 378.

III. NEPA Review

The Plaintiffs argue five violations of NEPA, the CEQ regulations or the FHWA regulations: 1) that FHWA violated NEPA when it adopted the 1986 FEIS; 2) that FHWA violated FHWA regulations by not reevaluating the entire CCCH before proceeding with its plans for segment A-B; 3) that the final revised reevaluation violates NEPA because it improperly segments analysis of the environmental impacts; 4) that the final revised reevaluation violates NEPA because it failed to consider reasonable alternatives to the CCCH; and 5) that FHWA failed to consider significant new environmental impacts and therefore the decision not to prepare an SEIS was arbitrary and capricious.

A. Adoption of the 1986 FEIS

Section 131(f) of the Surface Transportation Assistance Act of 1982 authorized VTrans to act for the United States Department of Transportation in NEPA compliance matters, including approval

of the FEIS, for the fifty million dollar demonstration project. (AR 1A000001; 20002018.) Accordingly, following the publication of the 1986 FEIS, VTrans issued a ROD, accepting the selected alternative for the CCCH. (AR 1A000122-25.) FHWA took no official action to approve the documents.

Upon the exhaustion of the funds provided in the demonstration project, new authorizations of federal funding for the CCCH required that a federal EIS be in place. (AR 10007948.) In order to comply with NEPA requirements, FHWA determined that it would adopt the 1986 FEIS, under the provisions of 40 C.F.R. § 1506.3. (AR 10007947-49.) Notice of adoption of the 1986 FEIS was published in the Burlington Free Press on July 20, 2002. (AR 10008271.) On August 22, 2003, the FHWA issued a ROD documenting the adoption of the 1986 FEIS and stating that, with respect to segments A-F, any changes that have taken place since 1986 will not result in significant new impacts. (AR 1A000601-14.)

1. Judicial review of adoption of the 1986 FEIS.

Under the APA, a right of action accrues at the time of "final agency action." 5 U.S.C. § 704. Although the 2002 adoption itself was not a final action, the August 22, 2003 ROD was final agency action. See Sierra Club v. Slater, 120 F.3d 623, 631 (6th Cir. 1997) (final EIS or ROD issued thereon constitutes final agency action). Preliminary, procedural, or intermediate agency action is subject to review on the review of

the final agency action. 5 U.S.C. § 704. Therefore, Plaintiffs' challenge to FHWA's adoption of the 1986 FEIS is reviewable in this proceeding.

2. Independent evaluation of the 1986 FEIS.

An EIS prepared by a state agency will not be found legally insufficient if (1) the state agency has statewide jurisdiction and responsibility for the proposed action; (2) the responsible federal official furnishes guidance and participates in the preparation of the EIS; 3) the responsible federal official independently evaluates such statement prior to its approval and adoption, and 4) the responsible federal official provides early notification to, and solicits the views of, other state or federal land management entities. 42 U.S.C. § 4332(2)(D); see also 23 C.F.R. § 771.109(c)(1) (if applicant meets requirements of § 4332(2)(D), it may prepare EIS with FHWA furnishing guidance, participating in preparation and independently evaluating document). Plaintiffs claim that FHWA did not independently evaluate the FEIS prior to its adoption.

The 2002 Notice of Adoption states that the FHWA independently evaluated the FEIS and determined that it adequately and accurately identified and discussed the environmental issues and impacts of those elements proposed for FHWA funding, and that the FEIS meets the standards for an adequate statement under CEQ and FHWA regulations. (AR .)

Although Plaintiffs argue that FHWA was not directly involved in preparing the 1986 FEIS, that outside consultants played a major role in writing the EIS, and that the record does not reflect that FHWA critically reviewed the entire FEIS, they have not sustained their burden of demonstrating that FHWA did not in fact do what it said it did: independently evaluate the 1986 FEIS before adopting it. On the contrary, the evidence shows at a minimum that FHWA closely evaluated the FEIS in the course of deciding its appropriate procedural course. See, e.g., AR 1A000950-55; 1A000761-62.

3. Adequacy of the 1986 FEIS.

An agency may adopt a federal FEIS "provided that the statement or portion thereof meets the standards for an adequate statement." 40 C.F.R. § 1506.3(a). The Plaintiffs argue that the 1986 FEIS did not meet the standards for an adequate EIS, because it failed to provide an adequate analysis of reasonable alternatives, failed to provide an adequate discussion of environmental impacts, and did not provide adequate justification for use of identified Section 4(f) properties.

An EIS will be upheld as adequate if the agency has followed a "rule of reason" in its preparation, and has compiled it in good faith, "and set[] forth 'sufficient information to enable the decision-maker to consider fully the environmental factors involved and to make a reasoned decision after balancing the

risks of harm . . . against the benefits to be derived from the proposed action, as well as to make a reasoned choice between alternatives.'" Town of Huntington v. Marsh, 859 F.2d 1134, 1140 (2d Cir. 1988) (quoting Suffolk County v. Sec. of Interior, 562 F.2d 1368, 1375 (2d Cir. 1977)).

a. Reasonable alternatives to the CCCH.

CEQ regulations require that an EIS rigorously explore and objectively evaluate all reasonable alternatives. 40 C.F.R. § 1502.14(a). "This section is the heart of the environmental impact statement." Id. However, an EIS "need not consider an infinite range of alternatives, only reasonable or feasible ones." City of Carmel-By-The-Sea v. United States Dept. of Transp., 123 F.3d 1142, 1155 (9th Cir. 1997); see Vermont Yankee Nuclear Power Corp. v. Natural Resources Defense Council, Inc., 435 U.S. 519, 551 (1978) (detailed statement of alternatives not inadequate because agency failed to include every conceivable alternative); Friends of Ompompanoosuc v. F.E.R.C., 968 F.2d 1549, 1558 (2d Cir. 1992) (range of alternatives that must be discussed is within agency's discretion).

The rule of reason must govern "'both *which* alternatives the agency must discuss, and the *extent* to which it must discuss them.'" Citizens Against Burlington, Inc. v. Bushey, 938 F.2d 190, 195 (D.C. Cir. 1991) (quoting State of Alaska v. Andrus, 580

F.2d 465, 475 (D.C. Cir.), vacated in part as moot sub nom. Western Oil & Gas Ass'n v. Alaska, 439 U.S. 922 (1978)) (emphasis in original). The discussion "need not be exhaustive. '[W]hat is required is information sufficient to permit a reasoned choice of alternatives as far as environmental aspects are concerned.'" Dubois v. United States Dept. of Agriculture, 102 F.3d 1273, 1287 (1st Cir. 1996) (quoting All Indian Pueblo Council v. United States, 975 F.2d 1437, 1444 (10th Cir. 1992)).

In twenty-three pages the 1986 FEIS considered and rejected five alternatives to the CCCH¹⁰ and three alternative alignments for the highway. The Plaintiffs object to the failure to consider rail transit as part of an Alternative Modes of Transportation alternative, to consider the potential for Alternative Modes to serve the project's purpose and need without new road construction, or to consider an alternative that combined Alternative Modes with Re-Build Existing Roadways.

Although the alternatives section of this document is hardly a model of rigorous exploration, the information was sufficient to permit a reasoned decision among the alternatives presented.

¹⁰ The 1986 FEIS alternatives were:

- A. No Action
- B. Alternative Transportation Modes
- C. Rebuild Existing Roadways
- D. Limited Build Alternative
- E. Full Build Alternatives: Green Line, Purple Line, Orange Line
- F. Susie Wilson Connector Road

Alternative transportation combined with a two-lane highway was not thought to reduce traffic volume over the long-term; alternative transportation alone would therefore not have merited a separate discussion. Although there was no discussion of rail transit, there appears to have been no contemporaneous suggestion to consider it, and at the time commuter rail service did not exist in Vermont.

In its comments on the 1986 Draft EIS, EPA recommended the consideration of combinations of alternatives "such as the 'rebuild' option coupled with 'alternative transportation modes,.'" In response VTrans wrote: "[t]he rebuild/alternative modes combination was not evaluated because it would not result in a significant improvement in traffic service over Rebuild Existing, but it would have the same adverse land use and socioeconomic impacts as Rebuild Existing." (AR .)

The discussion of alternatives in the 1986 FEIS was not legally inadequate.

b. Discussion of environmental impacts.

NEPA requires agencies to consider the cumulative effects of their proposed actions. 40 C.F.R. § 1508.25(c); Utahns for Better Transp. v. United States Dept. of Transp., 305 F.3d 1152, 1172 (10th Cir. 2002); Kern v. United States Bureau of Land Management, 284 F.3d 1062, 1076 (9th Cir. 2002); Village of Grand View v. Skinner, 947 F.2d 651, 659 (2d Cir. 1991). "'Cumulative

impact' is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions." 40 C.F.R. § 1508.7. Individually minor but collectively significant actions, taking place over time, can generate cumulative impacts. Id. A meaningful cumulative impact analysis, according to a D.C. Circuit panel, "must identify (1) the area in which the effects of the proposed project will be felt; (2) the impacts that are expected in that area from the proposed project; (3) other actions--past, present, and proposed, and reasonably foreseeable--that have had or are expected to have impacts in the same area; (4) the impacts or expected impacts from these other actions; and (5) the overall impact that can be expected if the individual impacts are allowed to accumulate." Grand Canyon Trust v. F.A.A., 290 F.3d 339, 345 (D.C. Cir. 2002).

The 1986 FEIS identified several planned highway improvements in the region, including but not limited to the reconstruction and widening of Shelburne Road, construction of the Southern Connector, reconstruction of portions of Route 2A and Route 15, and widening a portion of Route 2. The FEIS noted that "the environment within the study corridor continues to change weekly due to the pace of development taking place in Chittenden County," and "there is a high level of development

activity in the[] towns within close proximity to the proposed alignment." (AR). There is no discussion whatsoever in the FEIS of the potential cumulative impact of these road construction projects or of other major development projects in the area that may have similar impacts on environmental resources, such as agricultural lands, water quality and air quality.

An EIS must consider indirect impacts. 40 C.F.R. § 1502.16. These may include induced growth¹¹ and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems. 40 C.F.R. § 1508.8(b). In its three-page discussion of secondary impacts, the 1986 FEIS acknowledged difficulty in "clearly identifying the location and extent of indirect impacts", mentioned that "development is anticipated only along those roadways which would have direct access to the CCCH . . . generally in the vicinity of the new intersections" (AR), and agreed that the project would have indirect secondary impacts on agricultural lands in the project area. (AR). The FEIS did not support its assumptions with any analysis, nor were mitigation measures discussed. VTrans indicated that it intended to complete a study "to determine the indirect impacts on agricultural lands that would result from

¹¹ Often referred to as "sprawl."

construction of the highway."¹² Id. The FHWA protested at the time that such a study should have been done as part of the EIS process, and that if there were agricultural impacts that had not been studied for the EIS, then the FEIS should be withdrawn, and a proper agricultural land impact study completed and incorporated into a revised FEIS. (AR 1A000133.

The 1986 FEIS failed to address cumulative impacts and secondary impacts on agricultural resources.

c. Use of Section 4(f) resources.

Section 4(f) of the Department of Transportation Act of 1966 protects parks and other significant recreational resources from highway encroachment, and prohibits the taking of land unless it can be shown that there are no prudent and feasible alternatives to the use of the land. 49 U.S.C. § 303(c); 23 C.F.R. § 771.135(a)(1). The CCCH I-J segments would take part of the McCrea farm in Colchester. The McCrea Farm is part of the park system owned by the Winooski Valley Park District. It consists of 96± acres of upland meadow and forest and 191± acres of flood plain along the Winooski River. There is no visible development to be seen, and there are outstanding views. It is used for fishing, canoeing, hiking, bird watching, snowshoeing and cross-country skiing. The selected alternative takes 7.1 acres and severs three access points to the park. All of the build

¹² That study was completed in 1987. (AR .)

alternatives for the CCCH would be visible from the park and the traffic would generate substantial noise.

The Defendants argue that this challenge is not ripe, because the 2003 ROD did not authorize any further action with respect to resources in segments G-J. The 2003 ROD stated that

FHWA believes that additional environmental evaluation should be completed on Construction Segments G-J, and, thus, FHWA is withholding a determination regarding additional construction beyond Segments A-F at this time. FHWA has committed to additional environmental studies with public involvement prior to making a decision on the selection of an alternative beyond Construction Segment F.

(AR 1A000605.)

If the issue were the adequacy of the FEIS for purposes of constructing Segments G-J, the Defendants' point would deserve more attention. But the issue is the adequacy of the FEIS for purposes of permitting the FHWA to adopt the document pursuant to 40 C.F.R. § 1506.3, and that issue became ripe with the issuance of the 2003 ROD.

A Section 4(f) analysis must include information that demonstrates the basis for concluding that there are no feasible and prudent alternatives to the use of the Section 4(f) land. The FEIS did this only for the three build alternatives. It failed to include information from which to evaluate the no-build, rebuild or limited build alternatives. The FEIS did demonstrate that the agency made a reasoned choice in selecting

its preferred alternative from the three build routes. If building the road were a given, then the rationale for the route selected satisfies the statute's requirements. FHWA policy, however, requires that an evaluation of no prudent or feasible alternative must include the no-build option. (AR 10010448-50.)

Moreover, the Section 4(f) discussion must include information that demonstrates that "there are unique problems or unusual factors involved in the use of alternatives that avoid these properties, or that the cost, social, economic, and environmental impacts, or community disruption resulting from such alternatives reach extraordinary magnitudes." 23 C.F.R. § 771.135(a)(2). There is no such information in the 1986 FEIS.

It is impossible to tell from the environmental documents or the administrative record whether the Defendants reasonably believed that there are no feasible or prudent alternatives or that alternatives have unique problems or unusual factors. See Committee to Preserve Boomer Lake Park v. Dept. of Transp., 4 F.3d 1543, 1549 (10th Cir. 1993) (discussing three-step review set forth in Citizens to Preserve Overton Park).

An EIS that is without sufficient information to demonstrate that a reasoned decision was made is legally inadequate. Town of Huntington, 859 F.2d at 1140. The 1986 FEIS failed to provide an adequate discussion of cumulative and secondary environmental impacts, and did not provide adequate justification for use of

Section 4(f) properties, both of which were required under NEPA for an EIS. The FHWA consequently could not properly adopt the FEIS, because it did not "meet[] the standards for an adequate statement." 40 C.F.R. § 1506.3(a).

B. The 2003 FREA

1. Re-Evaluation under 23 C.F.R. § 771.129

The FHWA requires a written evaluation of a final EIS before further approvals may be granted if more than three years have passed since the last major FHWA approval or grant. 23 C.F.R. § 771.129(b). The purpose of the reevaluation is to determine whether a supplemental EIS is needed. No particular format is specified for a reevaluation, but according to FHWA guidelines, it should focus on the changes in the project, its surroundings and impacts, and any new issues identified since the FEIS was approved. FHWA Technical Advisory T 6640.8A (AR 20011722).

A reevaluation is intended to provide a careful look at proposed projects that have been inactive for a relatively long time since the last major step in project development, to assess any changes that have occurred and their effect on the validity of the environmental document. 52 Fed. Reg. 32646, 32655-56. If the FHWA is uncertain whether new impacts are significant, it may require an EA to assess the impacts of the changes, new

information, or new circumstances. 23 C.F.R. § 130(c).

FHWA chose to do its reevaluation in two parts, an informal review of the issues with respect to Segments G-J (AR 10010438-41), and a more detailed study prepared in an EA format for Segments A-F (the FREA). The reevaluation for Segments G-J was documented in an internal memorandum dated August 22, 2003, that concluded that a new or supplemental EIS was not required at that time for the CCCH because there were no new significant impacts. (AR 10010438-41.) The FREA also concluded that the changes to the project and the environment that have occurred since the publication of the 1986 FEIS did not result in any additional or new significant environmental impacts. (AR .)

The Court is unable to determine from the administrative record whether FHWA took "a careful look" at Segments G-J, because the draft and final evaluations of those segments were apparently not included in the record. Nevertheless, all the regulation requires is a written evaluation. The Court therefore does not find that FHWA violated its regulation on reevaluating stale projects.

2. Consideration of Alternatives in the FREA

Neither the CEQ regulations nor the FHWA regulations require an EA to determine whether an SEIS is necessary. FHWA's regulation on reevaluation of stale projects, 23 C.F.R. § 771.129, requires a written document, and specifies that FHWA may

require an EA "to assess the impacts of the changes, new information, or new circumstances." Id. § 771.130(c). In this case, FHWA required that an EA be prepared "in accordance with 23 C.F.R. § 771.130(c)"¹³ for Segments A-F. (AR 10007949.)

According to the FHWA's commentary on its own regulations governing the preparation of environmental documents, "[a]n EA would be appropriate where a number of different environmental effects need to be assessed and, in the [FHWA]'s view, there is uncertainty as to the significance of these effects." 52 Fed. Reg. at 32656. According to the Defendants, the purpose of the EA was to examine several different environmental effects. Defs. Opp'n at 14. In its July 2002 public Notice of Adoption, the FHWA announced that its reevaluation would be prepared as an EA in accordance with 23 C.F.R. § 771.130(c), which sets forth appropriate approaches when FHWA is uncertain of the significance of new impacts. 23 C.F.R. § 771.130(c).

The CEQ defines an EA as "a concise public document . . .

¹³ Section 771.130(c) provides:
Where the Administration is uncertain of the significance of the new impacts, the applicant will develop appropriate environmental studies or, if the Administration deems appropriate, an EA to assess the impacts of the changes, new information, or new circumstances. If based upon the studies, the Administration determines that a supplemental EIS is not necessary, the Administration shall so indicate in the project file.

that serves to . . . '[b]riefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact." 40 C.F.R. § 1508.9(a)(1). It must include "brief discussions of the need for the proposal, of alternatives as required by sec. 102(2)(E),¹⁴ of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted." Id. § 1508.9(b).

Case law is consistent: NEPA requires federal agencies to consider alternatives to a proposed action, even when a full-scale EIS is not prepared. See, e.g., Greater Yellowstone Coalition v. Flowers 359 F.3d 1257, 1277 (10th Cir. 2004); Highway J Citizens Group v. Mineta, 349 F.3d 938, 960 (7th Cir. 2003); Mt. Lookout-Mt. Nebo Property Protection Ass'n v. F.E.R.C., 143 F.3d 165, 172 (4th Cir. 1998); Sierra Club v. Espy, 38 F.3d 792, 803 (5th Cir. 1994). The range of alternatives considered, and the degree of analysis required, is less extensive than for an EIS, of course. See Airport Impact Relief, Inc. v. Wykle, 192 F.3d 197, 209 (1st Cir. 1999) (federal agency need not perform detailed environmental analysis of EIS before it

¹⁴ Sec. 102(2)(E) is codified at 42 U.S.C. § 4332(2)(E), and provides that federal agencies must "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C.A. § 4332(2)(E).

can determine that no EIS need be prepared); Mt. Lookout, 143 F.3d at 172 (citing cases); Friends of Ompompanoosuc v. F.E.R.C., 968 F.2d 1549, 1558 (2d Cir. 1992) (range of alternatives that must be discussed is within agency's discretion).

The FREA included an "alternatives" section. (AR 30002665-703.) In an introductory paragraph it mentioned the alternatives presented in the 1986 FEIS, and dismissed the "No-Action, Alternative Transportation Modes and Rebuilding Existing Roadways" alternatives as not having met the project's purpose and need. (AR 30002665.) The remainder of the section described and discussed the changes in the selected alternative, the four-lane limited access road. These included minor changes in alignment and elimination of interchanges. The purpose of this section was clearly stated: "to identify the Segments A-F alignment changes that have occurred since the 1986 CCCH FEIS, and to evaluate the selected alternative's ability to continue to meet the project's purpose and need requirements." (AR .)

The section labeled "alternatives" thus was not a consideration of alternatives, but an examination of the changes to the selected alternative and a justification for constructing the next segments. The FREA did not consider alternatives to the proposed project. The Defendants deemed it unnecessary: "the purpose of the reevaluation is to focus on changes to the project, its surroundings and new issues identified since the

EIS. . . . A reevaluation is not required to reconsider previous or additional alternatives, but to determine if the project has new or additional significant impacts since the publication of the FEIS." (AR 30003984.)

At issue is whether, having determined that reevaluation of the CCCH required an EA, and having informed the public that it would prepare an EA, the FHWA could redefine the constituent elements of an EA to avoid considering any reasonable alternatives to the CCCH. The Court concludes that deference to an agency's interpretation of its regulations does not extend to approving an interpretation that contradicts the unambiguous requirements of NEPA and the CEQ regulations that implement it.

NEPA requires that federal agencies consider alternatives to recommended actions "in any proposal which involves unresolved conflicts concerning alternative uses of available resources." 42 U.S.C.A. § 4332(2)(E). "The consideration of alternatives requirement . . . guarantee[s] that agency decisionmakers '[have] before [them] and take [] into proper account all possible approaches to a particular project (including total abandonment of the project) which would alter the environmental impact and the cost-benefit analysis.'" Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1228 (9th Cir. 1988) (quoting Calvert Cliffs' Coordinating Committee, Inc. v. United States Atomic Energy Comm'n, 449 F.2d 1109, 1114 (D.C. Cir. 1971)). "NEPA's

requirement that alternatives be studied, developed, and described both guides the substance of environmental decisionmaking and provides evidence that the mandated decisionmaking process has actually taken place." Id.

The consideration of alternatives requirement of § 4332(2)(E) is independent of the EIS requirement (an EIS must contain a detailed statement on alternatives to the proposed action, see 42 U.S.C.A. § 4332(2)(C)(iii)). See City of New York v. United States Dept. of Transp., 715 F.2d 732, 742 n.10 (2d Cir. 1983) (§ 4332(2)(E) applies even when agency need not prepare complete EIS); accord Bob Marshall, 852 F.2d at 1228-29. In a case such as this one, where consideration of alternatives was last documented eighteen years ago,¹⁵ where conflict over the use of resources is unresolved and substantial, and where the agency itself was unsure of the significance of new impacts, NEPA required that FHWA consider alternatives to its selected alternative in the environmental document it prepared. NEPA's requirement is underscored by the CEQ regulation: an EA must include a brief discussion of alternatives. 40 C.F.R. §

¹⁵ Plaintiffs assert that there is new information on the effectiveness of alternatives not considered in 1986, including commuter rail service and roundabout intersections, which they brought to Defendants' attention during the comment period. Pls.' Brief at 35. See AR 30003880-83. The EPA, in urging FHWA to issue a supplemental EIS, noted that alternative modes of transportation appear to be available now that were not as feasible in 1986. (AR 1A001174.)

1508.9(b).

FHWA violated NEPA and CEQ regulations by preparing an EA that was intended to determine whether an SEIS was necessary without undertaking a brief analysis of alternatives to the project.

3. Segmentation

FHWA regulations, based on CEQ guidelines, set forth the standard for segmentation: "[i]n order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated . . . shall (1) connect logical termini and be of sufficient length to address environmental matters on a broad scope; (2) have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and (3) not restrict consideration of alternatives for other reasonably foreseeable transportation improvements." 23 C.F.R. § 771.111(f). A project has been improperly segmented "if the segmented project has no independent utility, no life of its own, or is simply illogical when viewed in isolation." Stewart Park & Reserve Coalition, Inc. (SPARC) v. Slater, 352 F.3d 545, 559 (2d Cir. 2003) (citing Hudson River Sloop Clearwater, Inc. v. Dept. of Navy, 836 F.2d 760, 763-64 (2d Cir. 1988)). Plaintiffs argue that Segments A-B cannot meet the FHWA regulatory criteria,

specifically that they have no independent utility, and that construction will restrict consideration of future alternatives.

a. Independent utility.

"The proper question is whether one project will serve a significant purpose even if a second related project is not built." Coalition on Sensible Transp., Inc. (COST), v. Dole, 826 F.2d 60, 69 (D.C. Cir. 1987). Segments A-B are undisputedly an interrelated piece of a larger project. The issue is thus whether construction of Segments A-B will serve a significant purpose even if Segments G-J are not built.¹⁶

The Defendants argue that the construction of Segments A-B will reduce existing congestion on local roadways and better accommodate through traffic. They cite the 2002 Traffic Report, which summarized a key finding of a 2000 traffic study of traffic conditions with and without Segments A-B of the CCCH:

[i]t is anticipated that the proposed CCCH Segments A and B will further reduce traffic through Essex

¹⁶ The Plaintiffs mount a strenuous attack on Defendants' use of the CCMPO Integrated Transportation and Land Use model, which they contend inflated the traffic levels under the no-build scenario, and failed to consider the impact of induced travel (increased road capacity that encourages additional travel) or peak-hour shifting (off-peak trips that shift into peak-hour due to perceived decreases in congestion). Courts accord deference to agencies' choice of methodology. See Mid States Coalition for Progress v. Surface Transportation Bd., 345 F.3d 520, 535-36 (8th Cir. 2003).

Junction and improve intersection performance at the South Street/River Street intersection and at Five Corners. Without Segments A and B these locations will likely experience substandard levels of service (LOS F) by the year 2008. With construction of Segments A and B, traffic is projected to decrease on Route 15 between Five Corners and Allen Martin Drive, on Route 117 between Five Corners and the CCCH interchange and on Route 2A between I-89 and Five Corners. Improved traffic operations will be realized at many intersections along these corridors.

(AR 30004175.)

The 2002 Traffic Report concurred: "Route 2A is the only major north/south highway facility in Williston. Partial construction of Segments A and B of the CCCH will supplement and reduce congestion along this arterial, which has the added benefit of reducing north/south volumes through the Five Corners intersection in Essex Junction." (AR 30004254.)¹⁷

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Additional key findings:

- The greatest percent reductions in traffic will occur within the Essex Junction area of the Five Corners intersection along Main Street/Route 15 (13% reduction in both the AM and PM peak hour), Maple Street/Route 177 (17% reduction in the AM Peak hour and 20% reduction in both the AM and PM peak hour). Without Segments A and B, the Five Corners intersection would experience deficient levels of service (LOS F) by the year 2018.
- Route 2A will benefit greatly in terms of traffic reductions with volumes reduced south of Five Corners by 4 to 15% . . .
- Traffic volume decreases ranging from 2 to 9% will be realized along the heavily traveled Susie Wilson Road corridor. . . .
- Traffic volumes are forecast to increase along Mountain View Road from Route 2A to Redmond Road and Redmond Road to

The Defendants acknowledge that the quantitative improvement

the proposed Redmond Road Connector. The traffic volume increases range from 17% during the AM peak hour to 20% during the PM peak hour; however, traffic volume decreases ranging from 5 to 13% for the AM and PM peak hour respectively are forecast for Mountain View Road east of Redmond Road. The decreases are attributed to traffic utilizing the Redmond Road interchange via the CCCH to reach Route 2A instead of the by-pass route of Mountain View Road via Old Stage Road and North Williston Road.

- The highest percent traffic volume increases are expected along Route 117 from the Route 289 ramps to Sand Hill Road and along Sand Hill Road from Route 117 to Route 15 where volumes are forecast to increase [sic] from 16 to 26% and 8 to 12%, respectively. These traffic volume increases are attributed to better access to Essex from Williston and I-89 via Segments A and B than utilization of the Route 15 corridor. The associated traffic volume decreases along Route 15 from Route 289 to Allen Martin Drive range from 1 to 6% depending on the location along the arterial and the time-of-day. . . .
* * *
- Two of four area intersections, that operate at LOS E during one or both of the 2003 No-Build peak hour conditions, would improve to LOS D or better with partial construction of Segments A and B. The two remaining intersections are presently unsignalized and would continue to operate at LOS E.
- Twenty (20) of the 39 study area intersections will deteriorate to substandard levels of service (LOS E OR F) in either the AM and PM peak hours by the year 2023. Poor traffic operations and a high volume-to-capacity ratio is expected at the Five Corners intersection in Essex Junction.
- The 2023 "A/B build" in comparison to the "No-Build" results in measurable LOS improvements at 12 of the 39 study area intersections, and a reduction in total number of intersections operating at substandard LOS during either the AM and PM peak hour from 20 to 12.

(AR 30004255-58.)

for the individual driver from the construction of Segments A-B is a slim seven seconds of time saved per vehicle during the evening rush hour. (AR 30004252.) And congested VMT (vehicle miles traveled) is projected to decrease by a modest 2%, mostly on local streets and arterials. (AR 30004258.) The Defendants are quick to point out, however, that those seven seconds multiplied by the estimated number of vehicles results in savings of approximately 467,700 seconds. (AR 30004252.)

Whether achieving a savings of seven seconds in commuter time is a wise expenditure of resources is not a judgment that this Court is permitted to make. The record indicates that Segments A-B show independent utility; they are expected to result in reduced traffic volume on local roadways and improve traffic flow at intersections.

b. Restricted consideration of alternatives.

Plaintiffs contend that building Segments G-J is a foregone conclusion once Segments A-B are built. When a "project effectively commits decisionmakers to a future course of action" the linked projects should be jointly evaluated. COST, 826 F.2d at 69. Plaintiffs point out that several of the traffic problems that construction of Segments A-B is supposed to alleviate were caused by construction of Segment C-F. They infer that traffic problems caused by the completion of Segments A-F will soon be used to justify construction of Segments G-J.

This speculation may prove accurate, but there is no evidence that completion of Segments A-B will compel the completion of Segments G-J. The record indicates that Defendants have made a clear separation between the two projects, in that further environmental evaluation will be required before FHWA will approve further funding for segments G-J.

Given the deferential standard of review the Court finds that the decision to evaluate separately Segments A-B was not improper segmentation.

4. New Environmental Circumstances and Information

An agency's duty to take a "hard look" at the environmental consequences of its proposed action does not end with publication of an EIS. NEPA imposes an ongoing obligation to supplement EISs if "[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." 40 C.F.R. § 1502.9(c). The decision whether to prepare an SEIS is similar to the decision whether to prepare an EIS in the first place: major federal action, plus new information that shows "that the remaining action will affect the quality of the human environment in a significant manner or to a significant extent not already considered," dictates the preparation of an SEIS. Marsh v. Oregon NRC, 490 U.S. at 392-93.

The parties do not dispute that the proposed action is major, nor that there is new information. At issue is whether

the new information results in impacts that are significantly different in degree or in kind from the impacts previously considered. Significance is evaluated in context and for intensity, i.e., the severity of impact. 40 C.F.R. § 1508.27. Plaintiffs focus on five factors identified in the CEQ regulation as contributing to severity of impact: the degree to which the effects are likely to be highly controversial; the degree to which the possible effects are highly uncertain, or involve unique or unknown risks; whether the action in combination with other actions produces cumulatively significant impacts; the degree to which an endangered or threatened species or habitat may be affected; and whether the action threatens a violation of federal, state or local law. Id. §§ 1508.27(b)(4), (5), (7), (9), (10). Close calls should be resolved in favor of preparing an SEIS. See Nat'l Audubon Soc. v. Hoffman, 132 F.3d 7, 13 (2d Cir. 1997) (discussing determination of significance in deciding whether to prepare EIS).

The Court must therefore consider "whether the agency took a 'hard look' at the possible effects of the proposed action." Id. at 14. A party challenging the agency's decision not to prepare a supplemental EIS must show only that there is a substantial possibility that the action may have significant new impacts, not that it clearly will have such impacts. See id. at 18.

Plaintiffs argue that Defendants failed to consider, or

inadequately considered: 1) significant new environmental impacts associated with a fundamental change in the project; 2) significant new air quality impacts; 3) significant new water quality impacts; 4) significant new impacts to rare, threatened, and endangered species; 5) significant new environmental justice impacts; 6) significant new noise impacts; 7) significant new induced growth impacts.

a. Fundamental change in the project.

Plaintiffs contend that the fact that the CCCH is being constructed in phases constitutes a fundamental change to the project that would result in significant environmental impacts not evaluated in the EIS. The 1986 FEIS did not evaluate any impacts from a partial build CCCH. The change from a four-lane highway to a two-lane highway with an unknown completion date is substantial. The question, however, is whether the phased construction has or will result in significant impacts that have not been studied. Plaintiffs suggest that there are air pollution and environmental justice issues, which are discussed below. But the purpose of the FREA was to answer the precise question of the environmental impacts of the completed construction of Segments A-F, and to the extent that Plaintiffs merely disagree with these answers, the Court must defer to the informed discretion of FHWA, as long as it is satisfied that FHWA has taken the requisite hard look and has not acted arbitrarily

or capriciously.

b. Air quality.

Pursuant to the Clean Air Act, EPA has identified air pollutants that endanger public health and welfare, and promulgated National Ambient Air Quality Standards ("NAAQS") that set forth maximum allowable concentrations in ambient air for six air pollutants: carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), particulates of ten micrometers and smaller in diameter (PM₁₀), sulfur dioxide (SO₂), and lead (Pb). 42 U.S.C.A. §§ 7408-09; 40 C.F.R. pt. 50. EPA has not established NAAQS for mobile source air toxics ("MSATs") or hazardous air pollutants ("HAPs"), but relies on rules regulating vehicle emissions and fuel formulations to reduce and regulate these materials.

State implementation plans ("SIPs") are the primary means of attaining or maintaining NAAQS. SIPs must establish "schedules and timetables for compliance with the NAAQS. 42 U.S.C.A. § 7410(a)(2). Vermont has an EPA-approved SIP. (AR 10008396.) If Vermont achieves the NAAQS for a particular pollutant, it is considered to be "in attainment." 42 U.S.C.A. § 7407(d). Vermont was in 1986 and is currently in attainment. (AR 1A001176.)

The Federal-Aid Highway Act, 23 U.S.C.A. §§ 109-189 (West 2002 & Supp. 2003), establishes the Federal Aid Highway Program

("FAHP"), which provides funding for various highway projects. 23 U.S.C.A. §§ 103, 120, 144(g). FHWA administers the FAHP. The FAHP requires that urban areas with populations greater than 50,000 have a metropolitan planning organization ("MPO") that is responsible for comprehensive transportation planning. 23 U.S.C.A. § 134(a)-(b). An MPO must have long-range transportation plans ("LRTPs") and transportation improvement programs ("TIPs"). TIPs must conform to state air quality standards, and no transportation project may be funded by FHWA unless it is included in the TIP. The CCCH is in the Chittenden County MPO's current TIP. (AR 20019381-9476.) It therefore conforms to applicable federal and state air quality standards.

The 1986 FEIS analyzed air quality impacts of the CCCH, and concluded that there would be no significant air quality impacts. The conclusion was based on a 1985 Air Quality Technical Report ("Technical Report") (AR 20004308-4830), and updates to the Technical Report set forth in a July 1986 Application For An Air Pollution Permit ("Air Permit Application") (AR 20003760-4307.) Both a mesoscale analysis, which studies regional air quality, and a microscale analysis, which studies air quality at specific points such as intersections were conducted. (AR 20004981, 4983.) The FEIS contains summaries of these analyses. (AR 20004979-4984.)

The FEIS mesoscale analysis studied air quality in the

Burlington metropolitan area, including Colchester, Essex, Essex Junction, Winooski, Williston, South Burlington and Burlington. (AR 20004982.) The analysis looked at automotive generated pollutants: nonmethane hydrocarbons (HC), carbon monoxide (CO), and nitrogen oxides (NOx). (AR 20004981.) Traffic-generated emissions of these pollutants is a function of two components: (average vehicle emissions per mile and (2) the total vehicle miles traveled per day ("VMT"). Id. The mesoscale analysis compared VMT for existing conditions in 1984 with the No-Build alternative, the Two-Lane Build alternative and several Four-Lane Build alternatives for projected 1997 conditions. (AR 20004312-4317.) Emissions were calculated using the EPA MOBILE-3 emissions model. (AR 20004316, AR 20003773.)

According to this analysis, construction of any of the build alternatives would decrease VMT on existing roads, but increase overall VMT because the traffic diverted from local roads to the interstate and the CCCH would travel greater distances. (AR 20004312.) The study concluded that HC and CO emissions would decrease as a result of any of the build alternatives, because vehicles traveling on the CCCH and the interstate would travel at higher and more efficient speeds. (AR 20004981.) NOx emissions, which increase at higher speeds, were calculated to increase by 2% (60kg/day) for the build alternatives.

The microscale analysis studied seventeen intersections for

CO levels. (AR 20003764, 20003770-3771.) The CCCH build alternatives were predicted to reduce CO levels at the two intersections with the highest CO levels under the existing 1984 conditions and the projected 1997 conditions for the CCCH No-Build alternative. (AR 20003765, 20004984.) All other intersections were predicted to have either small increases or decreases between the 1997 No-Build alternative and the build alternatives. Id. None of the alternatives were predicted to cause levels to exceed the NAAQS for CO. (AR 20003778.) In 1986, the Vermont Agency of Environmental Conservation concluded that the CCCH project was consistent with the Vermont SIP. (AR .)

At the time of preparation of the FREA, there were new circumstances and new information concerning air quality issues, including the deterioration of ambient air quality in Chittenden County, and an increase in many of the air pollutants associated with vehicle travel. To determine whether this would result in new significant air quality impacts, Defendants updated their traffic analysis in 2002, and conducted further analysis in 2003. (AR 30004261-4332.) This analysis used the CCMPO model to project 2023 traffic volumes in Chittenden County for the No-Build Alternative (including the existing portion of the CCCH, Segments C-F), the Segment A-B Build Alternative (Segments A-F), and the Full-Build Alternative (Segments A-J).

The results of the traffic studies showed that construction of Segments A-B in conjunction with the already built Segments C-F would result in an increase in overall congested VMT of 2.3% by 2023. The A-B Build would relocate existing VMT and congested VMT from local roadways to the CCCH and interstate, but to a lesser extent than the Full-Build alternative. The Defendants concluded that the traffic predictions were consistent with the 1986 traffic predictions, that therefore their 1986 mesoscale air quality projections based on those traffic volumes were reasonably accurate, and that a new mesoscale analysis was unnecessary.

Plaintiffs argue that the 2002 traffic analysis fails to account for: (1) changes in vehicle emissions, emissions standards and fuel efficiency; (2) increased highway speed resulting from the repeal of the federal speed limit, Pub. L. 104-59, 109 Stat 588, § 205(d); (3) upward adjustments in base emissions rates; and (4) decrease in regional air quality. They emphasize that since 1986 the travel demand model and the mesoscale model have undergone several upgrades (EPA's current vehicle emission model is MOBILE 6). The Plaintiffs' air quality expert maintains that travel demand or air quality modeling from 1986 (using MOBILE 3) is completely outdated and should not be relied upon for any current planning purpose. The Plaintiffs contend that the air analysis is so inadequate that it prevented

the Defendants from making a reasoned decision.

Although the Court is unable to fathom why FHWA would undertake a partial, rather than a complete update of its air quality modeling, the Court's task here is not to dictate the sort of hard look the agency must take, but to determine whether it was hard enough. Given the minor change in VMT estimates from the 1986 estimates, FHWA's decision to look no farther than the traffic analysis was based upon reason.

Plaintiffs also assert that Defendants' air quality analysis fails to consider the following new circumstances or information: (1) recent NAAQS violations for ozone in the area; (2) adoptions of NAAQS standards for particulate matter (PM); (3) new information on the relationship between CO₂ emissions and global warming; and (4) Vermont's adoption of public health-based Hazardous Ambient Air Standards (HAAS) for Hazardous Air Pollutants (HAPs), violations of these standards in the project area and new information on the health impacts of HAPs.

HAPs, ozone, and CO₂ are all caused by congested VMT. The 1986 FEIS and the 2002 traffic analysis concluded that the CCCH will not alter overall congested VMT by a significant amount over the next twenty years. Thus, specific studies on these emissions, however desirable, were not required. Similarly, Defendants state that PM emissions are the result of increased VMT, which both the FEIS and 2002 traffic analysis indicated will

increase slightly. Plaintiffs have not established a substantial likelihood that there will be significant new air quality impacts.

c. Water Quality.

The FEIS concluded that there were significant water quality impacts at locations where the CCCH crossed the Winooski River and four streams (Alder Brook, Indian Brook, Sunderland Brook and Allen Brook). It concluded that compliance with state erosion control standards would effectively mitigate those impacts. The FEIS also identified increased levels of pollutants from construction and highway run-off as probable adverse impacts for which commitments to mitigate were outlined.

The FREA concluded that although there were new information and circumstances, they did not result in significant impacts that were not disclosed in the 1986 FEIS. Plaintiffs claim that the FREA is deficient in its discussion of the following: (1) implications of the fact that Allen Brook has been identified as impaired for sediment, and portions of Lake Champlain have been identified as impaired for phosphorus; (2) analysis of construction impacts; and (3) new information about the environmental consequences of road salt.

Pursuant to section 303(d) of the Clean Water Act, 33 U.S.C.A. § 1313(d) (West 2001), the Vermont Agency of Natural Resources ("VANR") has identified Allen Brook as failing to

comply with Vermont Water Quality Standards for sediment. FREA Vol. E at V-25 to V-26. (AR .) VANR has also placed certain segments of Lake Champlain on Vermont's section 303(d) list for phosphorous. FREA Vol. E at V-27. VANR made these designations after Defendants filed the FEIS.

With respect to Allen Brook, Defendants acknowledge that because there is no applicable Total Maximum Daily Load (TMDL) requirement, Vermont law prohibits a net increase of sediment into the brook. Defendants also acknowledge that, because the Winooski River discharges into Lake Champlain, discharges from the CCCH to the Winooski, whether direct or indirect, must comply with the Lake Champlain TMDL requirement.

The FEIS included analysis of water quality impacts in the CCCH corridor. (AR 20003463-3513.) The FREA reevaluated the issue in light of Allen Brook's section 303(d) designation. In particular, the FREA included a loading analysis that estimated the amount of sediment discharge caused by the highway. FREA Vol. E at V-19 to V-28. According to this study, the CCCH would add 8.34 to 9.08 tons of Total Suspended Solids (TSS) to Allen Brook per year. Id. at V-20. To mitigate this effect, the FREA documented VTrans' intent to implement various treatment measures, as required by the 2002 Vermont Stormwater Management Manual ("VSMM"). These measures include constructing vegetated bumper strips, dry grass line swales, catch basins with sumps and

extended dry detention basins. Id. at V-20 to V-21. The FREA projected that these measures would reduce the TSS loading into Allen Brook to .06 to 1.14 cubic yards per year. Id. To offset the remaining TSS loading, VTrans would designate a 1.2 mile segment of U.S. Route 2, also located within the Allen Brook watershed, as a low sand segment. According to the FREA, this offset will reduce the TSS loading into Allen Brook by 2.28 cubic yards per year, thus ensuring that there will be no net increase in sediment added to Allen Brook. Id.

In 2002, VANR issued Discharge Permit 1-1557 for the Allen Brook watershed. FREA Vol. F at E-1. VANR concluded that "the implementation of the offset plan in conjunction with compliance with the [VSMM] will ensure that the permitted discharge does not cause or contribute to a violation of the Vermont Water Quality Standards in [Allen Brook]." (AR 20009306.) See generally Vt. Stat. Ann. tit. 10, § 1264(e)-(g).¹⁸

The FREA also evaluated the potential impacts from phosphorous loading into Lake Champlain, and stated that the project complies with the applicable requirements. FREA Vol. E at V-27 to V-28. VANR issued Discharge Permit 1-1556 for the Redmond Creek and Winooski watersheds. FREA Vol. F at E-1. VANR

¹⁸ VANR's issuance of Discharge Permits 1-1556 and 1-1557 have been appealed to the Vermont Water Resources Board. Defs.' Reply at 32 (Doc. 59).

concluded that "the management of stormwater in this permit is consistent with Lake Champlain phosphorous TMDL." (AR 20009309).¹⁹

In sum, although the water quality standards for Allen Brook and Lake Champlain have undoubtedly changed since the FEIS was filed in 1986, the FREA concluded, and VANR concurred, that construction of Segments A-B will not violate those new standards. Plaintiffs have not shown that Defendants failed to take a hard look at the new legal status of Allen Brook and Lake Champlain.

The 1986 FEIS discussed the potential for increased sediment and other pollutant discharges during construction of the highway. (AR 20003134.) It concluded that the impacts could be sufficiently mitigated by compliance with VTrans's Standard Specifications for Highway and Bridge Construction. (AR 20004999.)

The FREA also addressed the issues of construction and water quality. It noted the project's compliance with the National Pollution Discharge Elimination System (NPDES) program. FREA Vol. E at V-27. See generally 33 U.S.C.A. § 1342. The FREA

¹⁹ VANR filed its Response Summary for the Draft Discharge Permt on October 8, 2002. (AR 20009303.) At that time, the Lake Champlain Phosphorous TMDL had yet to be approved. (20009306.) The Lake Champlain Phosphorous TMDL was approved on November 4, 2002. (AR 20015088.)

stated that "[u]nder the NPDES program, detailed erosion control measures and construction procedures have been developed to minimize the potential for sediment transport during construction." Id. In Vermont, the NPDES program is administered by VANR. VANR has issued the requisite NPDES permits for the construction of the CCCH. FREA Vol. F at E-2. By ensuring that the project complies with the NPDES program, the Defendants took a sufficiently hard look at the impact of construction on water quality.

Finally, Plaintiffs argue that the FREA failed to take a hard look at new information about the impact of road salt on water quality. The Water Quality Technical Report for the 1986 FEIS included a discussion about the impact of road salt on water quality in the CCCH corridor. (AR 20003511-3512.) The Report concluded that although stormwater runoff from the CCCH "has the potential" to harm water quality "it is not likely to constitute a problem" because potential impacts "can be mitigated through the use of existing Vermont regulations and through the appropriate design measures for managing stormwater . . . : flush shoulder design, overland flow via grass swales and controlled use of deicing salts." Id. The FEIS listed "[i]ncreased levels of some pollutants from construction and roadway runoff, including road salt and turbidity" as a probable adverse impact that could not be avoided. 1986 FEIS at 202. (AR .)

As FHWA acknowledged in correspondence with EPA, "there has been extensive additional research since [1986] (including our own) studying the effects of road salt on the environment." (AR 3002354.) It is now well-established, for example, that grass swales are not effective for controlling the pollutants found in deicing chemicals. (AR 1A002286, 30002942.) The FREA did not appear to address the new information about road salt specifically. Instead, it stated that due to "regulatory, design and technological improvements, and additional treatment/control of stormwater both during and following construction, CCCH impacts to water quality are anticipated to be less than original [sic] identified in the 1986 FEIS." FREA Vol. E at V-28.

In support of this conclusion, Defendants point to an initial field study by VANR which reveals that chloride concentration levels are approximately 40 mg/l, well below EPA's threshold concentrations of 250 mg/l for drinking water and 230 mg/l for aquatic habitat and fauna. Def.'s Opp. at 91. Defendants also cite a draft EIS, prepared by FHWA, for a proposed expansion of Interstate 93 in New Hampshire. Id. at 92. According to the New Hampshire study, a four-lane highway would not produce chloride concentrations in excess of the EPA's threshold levels in any of the impacted bodies of water. (AR 30002942.) Defendants point out that none of the receiving waters for the project have been determined to be impaired for

salt. They further add that VTrans has recently implemented a number of measures to reduce the effects of road salt, including reducing application levels, calibrating spreading equipment and using anti-icing procedures.

This information was sufficient for Defendants to conclude that road salt would not result in any significant new impacts to water quality that were not evaluated in the EIS.

Defendants took a sufficiently hard look at the new information and changed circumstances relative to water quality, and the determination that impacts to water quality are expected to be less than anticipated in 1986 (and therefore not meeting the significance test for supplementing the EIS) was not arbitrary and capricious.

d. Rare, Threatened and Endangered Species.

The 1986 FEIS concluded that there were no threatened and endangered species within the areas affected by the CCCH. (AR 20004969.) Relying on the FEIS, the FREA also concluded that there are no threatened or endangered species located within the area impacted by segments A-F of the CCCH. (AR 30002726.)

Plaintiffs allege, however, that since 1986 Vermont has listed a number of species that live in the Lower Winooski as threatened or endangered.²⁰ Plaintiffs have objected that Defendants failed to evaluate the potential impact of the CCCH on

²⁰ list of species

these protected species, in particular the potential impact of impaired water quality in the Winooski. VANR has informed FHWA and VTrans that the species were already known to exist in the Lower Winooski River near Lake Champlain. (AR 20015638.) The VANR official also noted there is a dam between that area and the project, and opined that the CCCH project "will result in better water quality" and therefore "his staff will not be very concerned by the information in the CLF/FOE letter." Id.

As discussed above, Defendants have demonstrated that the project complies with applicable water quality regulations. This fact, together with VANR's assessment, provided a reasoned basis for the conclusion that the species in question would not suffer a significant impact.

e. Environmental Justice.

Executive Order ("E.O.") 12,898 requires that federal agencies "identif[y] and address[], as appropriate, disproportionately high and adverse human health or environmental effects . . . on minority populations and low-income populations in the United States." Exec. Order No. 12,898, 59 Fed. Reg. 7,629-33 (Feb. 11 1994) (AR20016095-6098). FHWA has issued an order establishing policies and procedures to use in compliance with E.O. 12,898. Dec. 2, 1998 FHWA Order at 1 (AR 20016099). In part, the FHWA order defines "adverse effects" as "the totality of significant individual or cumulative human health or environmental effects,

including interrelated social and economic effects which may include, but are not limited to: . . . destruction or disruption of community cohesion or a community's economic vitality; . . . [or] the availability of public and private facilities and services." Id. at 2 (AR 20016100).

Plaintiffs claim that FHWA failed to consider adequately the impact of the CCCH on minority and low-income neighborhoods, Burlington's Old North End neighborhood in particular. Defendants respond first that the Court has no jurisdiction to review this claim because E.O. 12,898 expressly states that it does not create a private right to judicial review. (AR 20016098).²¹ The FREA contains a section entitled "Environmental Justice," which evaluates the project's compliance with E.O. 12,898. (AR3002717-2720). The Court has jurisdiction over Plaintiffs' claim pursuant to its ability under the APA to review environmental documents for compliance with NEPA, not pursuant to the above-cited orders. Defendants chose to include an environmental justice analysis in their evaluation of whether an SEIS was required. That analysis is therefore subject to review under the arbitrary and capricious standard of the APA. See Comtys. Against Runway Expansion, Inc. v. Fed. Aviation

²¹ The FHWA order contains substantially similar language. (AR 20016099.)

Admin., 355 F.3d 678 (D.C. Cir. 2004) (because FAA included environmental justice in its NEPA violation, analysis is subject to review under APA).

Plaintiffs point out that according to the FREA, the CCCH will result in the creation of fewer new jobs in urban areas like Burlington and South Burlington, which are accessible via public bus. (AR 30002627.) In contrast, job growth will increase in outlying areas inaccessible by public bus. Id. Thus, Plaintiffs contend that the CCCH will have adverse employment effects on poor and minority communities that rely on public transportation.

This argument is unconvincing. The FREA projects that under the No-Build Alternative, Burlington's number of employees will increase from 39,179 in 1998 to 49,465 in 2023, whereas under the Build Alternative the number of employees will increase to 49,254 in 2023. (AR 30003719.) In other words, Burlington is projected to experience a mere 0.63% reduction in future job growth. The change in projected job growth in the towns expected to benefit from the CCCH is similarly small. Colchester, for example, is projected to experience only a 0.08% increase in future job growth in 2023 under the Build Alternative. It was not unreasonable for Defendants to conclude that such a small shift did not represent a significant adverse employment effect on poor and minority neighborhoods. Their conclusion that the project complies with E.O. 12,898 was not arbitrary or capricious.

f. Noise.

FHWA regulations set forth the requirements for noise analysis and abatement. The agency must first determine whether there are "traffic noise impacts." 23 C.F.R. § 772.5(g). According to section 772.5(g), "traffic noise impacts" occur "when the predicted traffic noise levels approach or exceed the noise abatement criteria, or when the predicted traffic noise levels substantially exceed the existing noise levels."²² Noise Abatement Criteria ("NAC") establish threshold sound levels for different activities and places. For schools and residents the NAC for exterior areas is 67 dBA at Leq(h).²³ 23 C.F.R. § 772.11(a).

For the 1986 FEIS, to determine whether the CCCH would cause traffic noise impacts, data was collected from monitoring sites and sensitive receptor areas. Using a computer model, noise levels and predicted noise levels were calculated for the year 2007 under the No-Action alternative and the two and four lane alternatives. (AR 20004985-4987.) Noise was predicted to

²² "Existing noise levels" result from "natural and mechanical sources and human activity, considered to be usually present in a particular area." 23 C.F.R. § 772.5(b).

²³ Leq represents "the equivalent steady-state sound level which in a stated period of time contains the same acoustic energy as the time-varying sound level during the same time period." 23 C.F.R. § 772.5(e). Leq(h) is the hourly value of Leq. Id. § 772.5(f).

increase over time, even for the No-Action alternative. For some areas, noise levels were predicted to increase if the highway were built, while in other areas noise levels were predicted to decrease, and in still others, the highway was predicted to cause no change in noise levels. For the areas that met or exceeded the NAC, abatement measures were considered. (AR 20004990). The roadway was anticipated to have ROW noise levels up to 65 dBA for the year 2007.

Plaintiffs claim that Defendants failed to consider adequately the noise impacts of the CCCH, in particular the effect of highway noise on Allen Brook Elementary School, which did not exist at the time of the 1986 FEIS. The FEIS monitoring sites closest to the school's present location are a commercial area on Route 2A (Site #1) and a residential area adjacent to Redmond Road (Site #2). (AR 20004986.) In 1986, noise levels at Sites #1 and #2 were 68 dBA *Leq*(h) and 50 dBA *Leq*(h) respectively. Under the no-build alternative, noise levels at Site #1 were predicted to rise to 70 dBA *Leq*(h) by 2007, whereas at Site #2 noise levels were predicted to remain unchanged at 50 dBA *Leq*(h). Under the two build alternatives, 2007 noise levels at Site #1 were predicted to decrease to either 59 dBA *Leq*(h) (four-lane alternative) or 58 dBA *Leq*(h) (two-lane alternative). In contrast, 2007 noise levels at site #2 were predicted to rise to either 52 dBA *Leq*(h) (four-lane alternative) or 51 dBA *Leq*(h)

(two-lane alternative). Id. The FEIS also predicted that the highway would cause noise levels up to 65 dBA Leq(h) in Segment A-B north of Route 2 and up to 70 dBA Leq(h) in Segment A-B south of Route 2. (AR 20004989).

In their reevaluation of the noise impacts from traffic on Segments A-B, Defendants used more recent traffic data to estimate traffic flow for the years 2003 and 2023. (AR 30004207.) Based on this information, Defendants used an algorithm to calculate noise impacts from the highway. They concluded that in 2003, during the PM peak hour, the CCCH would create a noise level of 68 dBA Leq(h) at a distance of approximately 245 from the highway. In 2023, the figure was predicted to rise to 70 dBA Leq(h). Defendants also used a second method, known as the Transportation Noise Model, to predict traffic noise from the highway. This calculation produced a lesser estimate for 2023: 68 dBA Leq(h) during the PM peak hour at a distance of approximately 245 feet from the highway. (AR 1B000151.)

Using aerial photographs, Defendants identified noise receptors built after 1986. E.g., AR 30002673. The Allen Brook School was identified as a post-1986 noise receptor. (AR 30002744.) The FREA concludes that along Segment A-B, no pre-1986 noise receptors or post-1986 noise receptors, including the Allen Brook School, are located closer than 250 feet to the

highway, thus indicating that no receptor would experience noise levels greater than 68 dBA Leq(h) in 2003 or 70 dBA Leq(h) in 2003. Id. The FREA does not conclude that the Allen Brook School will not experience a "traffic noise impact" under 23 C.F.R. § 772.5(g). In fact, the FREA states that "receptor noise levels constitute impacts for the receptors closest to the CCCH." (AR .) at V-34. Nevertheless, the FREA asserts that "[n]oise receptors located after the 1986 Rule of Decision do not require mitigation for noise impacts." Id.

In their pleadings, however, Defendants argue that the Allen Brook School will not experience a traffic noise impact. Defendants assert that the exterior of the school is actually approximately 350 feet from the highway. Defs.' Opp at 99. As a result of this additional distance, Defendants claim that the Allen Brook School will experience less noise than the levels predicted for the 245 distance. Id. In addition, Defendants point out that the 2003 and 2023 estimates were predicated on traffic data for the PM peak hour, when school is not in session. Id. at 99-100 n.45. The more pertinent data, according to Defendants, is for the less heavily-traveled AM peak hour. Id. Defendants therefore contend that it is reasonable to conclude that noise levels at the school will not approach or exceed the NAC of 67 dBA Leq(h) and therefore do not constitute "traffic noise impacts" pursuant to 23 C.F.R. § 772.5(g).

There is no need to resolve the issue of whether the noise levels at the school will exceed or only approach the NAC. Were the Court to conclude that noise levels at the school would exceed the NAC, it would not necessarily follow that this was a significant new impact necessitating a SEIS. Defendants took a hard look at noise impacts in the FREA. There are no new significant noise impacts; new impacts are the result of new development, but do not represent a substantial increase over the noise levels for the CCCH predicted in 1986. Accordingly, Defendants' determination that a SEIS was not necessary was not arbitrary and capricious.

g. Highly controversial issues

Plaintiffs claim that Defendants were required to conduct a SEIS because of the level of controversy surrounding the CCCH. According to CEQ regulations, a SEIS is required if there are "significant new circumstances or information" regarding the environmental impacts of a proposed federal action. 49 C.F.R. § 1502.9(c)(1)(ii).²⁴ As used in NEPA, "significant[ly]" requires an agency to consider both context and intensity. *Id.* at § 1508.27. Intensity "refers to the severity of impact" and

²⁴ FHWA regulations require an SEIS when "new information or circumstances relevant to environmental concerns . . . would result in significant environmental impacts not evaluated in the EIS." 23 C.F.R. § 771.130(a)(2).

necessitates an evaluation of ten subfactors. Id. at § 1508.27(b)(1)-(10). One of these ten subfactors is "[t]he degree to which the effects on the quality of the human environment are likely to be highly controversial." Id. at § 1508.27(b)(4).

The Second Circuit has held, however, that "there is a difference between 'controversy' and 'opposition.'" Friends of Ompompanoosuc v. F.E.R.C., 968 F.2d 1549, 1557 (2d Cir. 1992). "The term 'highly controversial' refers to instances where 'a substantial dispute exists as to the size, nature or effect of the major federal action rather than to the existence of opposition to a use.'" Id. (quoting Town of Orangetown v. Gorsuch, 718 F.2d 29, 39 (2d Cir. 1983)). To the extent Plaintiffs have raised significant disputes about the effect of the CCCH, the Court addresses those issues in separate sections.

h. Induced Growth, Indirect Effects and Cumulative impacts (Sprawl).

An EIS must include a discussion of indirect effects and their significance. 40 C.F.R. § 1502.16. Indirect effects are defined as those

caused by the action and . . . later in time or farther removed in distance, but . . . still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.

Id. § 1508.8(b). NEPA requires consideration of cumulative

impacts as well. Id. § 1508.25(c). Cumulative impacts are those that result from the incremental impacts of an action "when added to other past, present, and reasonably foreseeable future actions." Id. § 1508.7.

As discussed above, the 1986 FEIS included no discussion whatsoever of cumulative impacts. It contained a sketchy acknowledgment of indirect impacts with regard to agricultural lands with no analysis. These deficiencies cause the 1986 FEIS to fail to meet the standards for an adequate EIS for purposes of adoption by FHWA.

For the FREA, the Defendants conducted a study to evaluate the potential for induced growth impacts in Chittenden County for the Full-Build alternative. Induced growth, frequently referred to as sprawl, has two components: growth that would not have occurred in the region without construction, and relocated or redirected growth that is directed to a specific area due to changes in accessibility. Defs' Oppn at 31, n.15. The study reportedly included both secondary, or indirect, impacts and cumulative impacts. (AR 30003354-55.) The study posited that the extent and location of growth within Chittenden County is the result of growth factors (population, developmental preferences, demographic and economic factors); location factors (area accessibility and developable land); and regulatory factors (state and federal permitting and local land use planning and

zoning).

The study made three analyses of induced growth. The studies were intended to test the validity of the assumption, made in the 1986 FEIS, that "[i]t is not anticipated that the CCCH will create growth in the Chittenden County Region in and of itself as growth has already been predicted for the region. However, the CCCH will focus and give direction to the growth trend already established." (AR ; VI-30.) This assumption reflects the

weight of professional opinion, and common practice, . . . that local highway projects do not change the aggregate economic growth of a region. . . , but they can change the distribution of that growth (e.g., more population growth and development may occur around a highway improvement than would have occurred in the absence of the improvement), or can cause growth and development to occur more quickly than it would have without the improvement.

(AR 20012065.) See also An Assessment of the Secondary Impacts of the Chittenden County Circumferential Highway on Agricultural Land, 11/87. AR 20014633-727) (literature review shows circumferential highway will not cause growth or development in a region; rather it will influence the distribution of that growth). at 20014641 This assumption relies in part on the observation that (1) the new project is usually a minor part of the regional transportation capacity, and (2) if transportation problems constrain growth in one part of a metropolitan area, that growth will occur in another part of the same region that

has fewer constraints." (AR 20011948.)

The first analysis used the CCMPO Integrated Transportation and Land Use Model. The CCMPO model employed a data set that includes a complete county highway inventory, plus current and projected population figures for the county and its municipalities, and economic and demographic data. The second analysis used the Statewide Transportation Demand Forecast Model to consider the potential impact construction of the CCCH would have on traffic amounts, flows and patterns throughout the state. The third analysis examined the validity of the old population and traffic projections from the 1986 FEIS.

The CCMPO study concluded that the towns of Essex, Williston and Colchester, towns that have experienced considerable growth and development pressure within the last decade, will experience more growth or grow more quickly than they would without the CCCH. (AR 30003798.) Induced growth impacts to agricultural lands and open spaces were expected to be concentrated near the CCCH interchanges, and the study documented various actions that have been taken to attempt to mitigate the loss of these lands. (AR .) All in all the study concluded that

[c]onstruction of the CCCH will not materially affect the amount of growth in Chittenden County, but may direct growth to developable areas that have increases in accessibility. The overall extent of induced growth within Chittenden County will be minimal, particularly in the areas located at the greatest distance from the CCCH. . . . These determinations are consistent with the induced

growth determinations made in the 1986 CCCH FEIS.

(AR .)

The FREA determined that neither changes to the CCCH nor new methodologies for assessing induced growth created a seriously different picture of the effect on induced growth than that disclosed for the full-build in 1986. "[C]onstruction of the CCCH would not materially affect the amount of growth within Chittenden County, but would refocus and redirect this growth to areas that have enhanced accessibility as a result of construction of the CCCH." (AR 30003382.) The ROD stated: "it is expected that the extent of growth in Chittenden County will change less than 1% due to construction of the CCCH." (AR 1A000604.)

The Plaintiffs object that the CCMPO analysis is flawed because the demographic and economic forecasts that were used in the model assumed that sufficient infrastructure will be available to support the population and economic growth trends that they predicted. See AR . Therefore, they say, the no-build and build scenarios were bound to show no significant difference in the overall amount of growth in the County.

While the Plaintiffs' objection may prove to be well-taken, a dispute over the inputs to a computer model is the kind of technical determination that requires deference to the agency from the Court, which is constrained to determine whether or not

FHWA made a "reasoned decision," even if its conclusion is debatable. See Marsh v. Oregon NRC, 490 U.S. at 378. Given the wealth of opinion that supports the assumption of no significant increase in overall regional growth from construction of a circumferential highway, and the outcome of the CCMPO modeling, the Court cannot say that FHWA's conclusion was not a reasoned decision.

Plaintiffs also mount technical challenges to the use of the Statewide Transportation Demand Forecast Model, and the 1986 growth projections. For the same reason, the Court concludes that there was no clear error of judgment in these analyses.

The Plaintiffs also object that a cost-benefit analysis, commissioned by VTrans and submitted to the Vermont Water Resources Board in connection with this project one month after the August 2003 ROD, touts the economic growth in the region that can be attributed to the construction of Segments A-B. "A Cost-Benefit analysis of Segments A & B of the Chittenden County Circumferential Highway" Pls.' Ex. 26 (Doc. 29) The study shows population increases, and employment and income gains initially from the expected increase in construction jobs, followed by slow but steady gains in employment and personal income due to the improved infrastructure. Id. at 3-6. The population and employment gains due to the construction of Segments A-B in fact amount to less than 1% of the projected population and employment

gains for the County. Although the emphasis seems to change depending on the audience (minimal GROWTH as opposed to MINIMAL growth), the underlying studies do not appear substantially inconsistent.

In sum, a careful review of the record demonstrates that FHWA took a "hard look" at the issue of whether the A-B Build of the CCCH will cause growth that would not have occurred without construction, one aspect of induced growth, which is one aspect of indirect or secondary impacts.

Induced growth consists not only of growth that would not have occurred absent the project, but of relocated or redirected growth due to changes in accessibility. The 1986 FEIS assumed that relocated development would occur generally in the vicinity of the new intersections and in high density zoning districts. (AR .) There was no discussion of the potential detrimental impact upon areas from which population and resources would be drained.

In its induced growth analysis, FHWA did not consider factors such as the detrimental social and economic impact of draining jobs and population from the region's cities: Burlington, South Burlington, Essex Junction and Winooski. In response to comments pointing out this omission, FHWA noted that growth rates in the urban core cities have been declining for thirty years and are predicted to continue. (AR 30003845.) The

Court cannot conclude that this constitutes a "hard look" at the effects of relocated growth in a region.

The 1986 FEIS did not discuss any development pressure on towns not directly adjacent to the CCCH. In fact, these towns aren't even on the maps included in the FEIS. The FREA's induced growth study summarizes that while the Adjacent Towns²⁵ and Outer Towns²⁶ will experience small increases in accessibility, their growth potential is affected by construction of the CCCH:

"[h]owever, planning and zoning within some of these towns is less developed, and growth pressures within some of these towns may result in uneven growth patterns." (AR .) The recognition that the CCCH would result in relocated growth pressure on outlying towns was "new information" that had not previously been evaluated in the 1986 FEIS. To the charge that FHWA underestimated the impact on communities that will experience increased development pressure due to increased accessibility, FHWA responded only that towns in the area will experience increased development pressure. (AR .) The cursory treatment of relocated growth pressures on the outlying towns in Chittenden County is inconsistent with a hard look at induced growth, particularly when the issue was not part of the

²⁵ Hinesburg, Jericho, Milton, Richmond, St. George, Shelburne, Underhill and Westford.

²⁶ Bolton, Buels Gore, Charlotte and Huntington.

original EIS.

As discussed above, the 1986 FEIS acknowledged that secondary or indirect impacts on agricultural lands were likely, and noted that a study on indirect impacts on agricultural lands resulting from construction of the CCCH would be forthcoming. (AR .) p. 174-76. The study was completed in 1987, long after the 1986 FEIS was circulated. Unless a document has been publicly circulated and available for public comment, it does not satisfy NEPA's EIS requirements. Commonwealth of Massachusetts v. Watt, 716 F.2d 946, 951 (1st Cir. 1983). Nor does the fact that the study was eventually included in an appendix to the FREA satisfy NEPA. An EA is no substitute for an EIS; for one thing the public has less opportunity to comment on an EA than an EIS. See Sierra Club v. Marsh, 769 F.2d 868, 875 (1st Cir. 1985). No meaningful assessment of secondary agricultural impacts has been publicly circulated and available for public comment, as far as the record shows.

Moreover, review of the record does not reveal that Defendants took a "hard look" at cumulative impacts. Other than the bald assertion in the introduction to the induced growth study that "induced growth, as utilized in this study, includes both secondary and cumulative impacts" (AR) the Court has been unable to find any discussion of cumulative impacts in the study or the FREA overall.

NEPA requires a "sponsoring agency to consider the impact on the environment resulting from the *cumulative* effect of the contemplated action and other past, present, and 'reasonably foreseeable' future actions." Village of Grand View v. Skinner, 947 F.2d 651, 659 (2d Cir. 1991) (citing 40 C.F.R. § 1508.7) (emphasis in original). As noted above, there has been no environmental analysis whatsoever, in the entire life of this project, of the cumulative effect of the CCCH considered in conjunction with other past, present and reasonably foreseeable future actions.

This neglect of a statutory duty is not subject to the arbitrary and capricious standard afforded an agency determination of whether new information is likely to have a significant impact on the environment; the Court concludes that the failure to produce any environmental document that addresses the cumulative impacts of the CCCH when considered with other projects was "not in accordance with law." 5 U.S.C.A. § 706(2)(A).

Given the cursory treatment of induced growth impacts in the 1986 FEIS; its failure to recognize that there will be induced growth impacts on outlying towns and on the cities; its inadequate treatment of secondary impacts on agricultural lands, including no meaningful opportunity for public comment throughout the project life; the absence of a cumulative impacts analysis

from the environmental documents; the consequent reduced opportunities for public involvement due to these omissions; and the passage of seventeen years, when taken together, have convinced the Court that the decision that no additional or new significant environmental impacts have been identified was arbitrary and capricious.

CONCLUSION

In this Opinion, the Court has assiduously avoided substituting its own judgment for that of FHWA. The Opinion should not be read as expressing a view one way or the other concerning the economic benefits or costs of constructing the CCCH. That is a determination left to agency expertise, elected officials, and ultimately the public. The Court also refuses to second-guess the opinions of the agency's experts; it defers to FHWA's technical or scientific studies or reports, concluding that FHWA was not arbitrary and capricious in relying upon them. Rather, at issue is whether Defendants complied with NEPA's statutory mandate and procedural requirements. The simple answer is that they have not.

NEPA requires federal agencies to conduct a comprehensive environmental impact statement for federal actions that significantly affect the quality of the human environment. That statement must include discussion of secondary impacts and of the cumulative impacts of past, present and reasonably foreseeable

future actions. In the 1980's, Chittenden County was undergoing rapid and clearly foreseeable development, yet the 1986 FEIS failed to analyze the cumulative and secondary effects of a massive (for Vermont) highway project. Section 4(f) of the Transportation Act prohibits highway encroachment on parks unless no feasible or prudent alternatives exist to use of the land. The Section 4(f) analysis did not comply with the statute's requirements for making that determination. To require compliance with the strictures of NEPA and Section 4(f) procedures is not pettifoggery. NEPA essentially is a law of procedure. Moreover, this noncompliance strikes at the purpose for which NEPA was passed, to provide assurances that the environment will not be compromised without the fullest possible understanding of the impact projects will have upon the human environment.

After the lapse of seventeen years, FHWA required that this project undergo an "environmental assessment." Environmental assessments require analysis of the cumulative and secondary impacts of a project. They also require at least a brief discussion of alternatives. The 2003 FREA contained a totally inadequate review of secondary and cumulative impacts, despite significant changes in Chittenden County in the interim. FHWA chose not to discuss alternatives to the project. These omissions and deficiencies are not just differences of opinion.

NEPA requires that these issues be addressed.

It is not for the Court to dictate to Defendants the remedy for these NEPA and Section 4(f) violations. It suffices to hold that the environmental documentation for the construction of further segments of the CCCH is legally inadequate. Construction may not proceed without NEPA-compliant documentation of cumulative and secondary impacts; a Section 4(f)-compliant analysis of taking part of the McCrea farm or a decision not to adopt that portion of the 1986 FEIS that approves Segments G-J; a NEPA-compliant EA or SEIS.

ORDER

WHEREFORE, the Court Orders as follows:

1. FHWA has violated NEPA, CEQ and FHWA regulations in approving Segments A-B of the CCCH;
2. Defendants are hereby enjoined from construction and/or ground-disturbing work in connection with Segments A-B until such time as Defendants have fully complied with the National Environmental Policy Act;
3. Plaintiffs' Motion for Partial Summary Judgment (Doc. 29) is GRANTED;
4. Defendants' Cross-Motion for Judgment (Doc. 43) is DENIED.

Dated at Burlington, Vermont this 10 day of May, 2004.

/s/ William K. Sessions III
William K. Sessions III
Chief Judge